

Use Attainability Analysis

for

WBID 1224 Big Otter Creek

Submitted by
TetraTech Inc.

To

Missouri Department of Natural Resources
Water Protection Program

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet A - Water Body Identification

RECEIVED
2005 JUN 14 PM 2:43
WATER PROTECTION PROGRAM

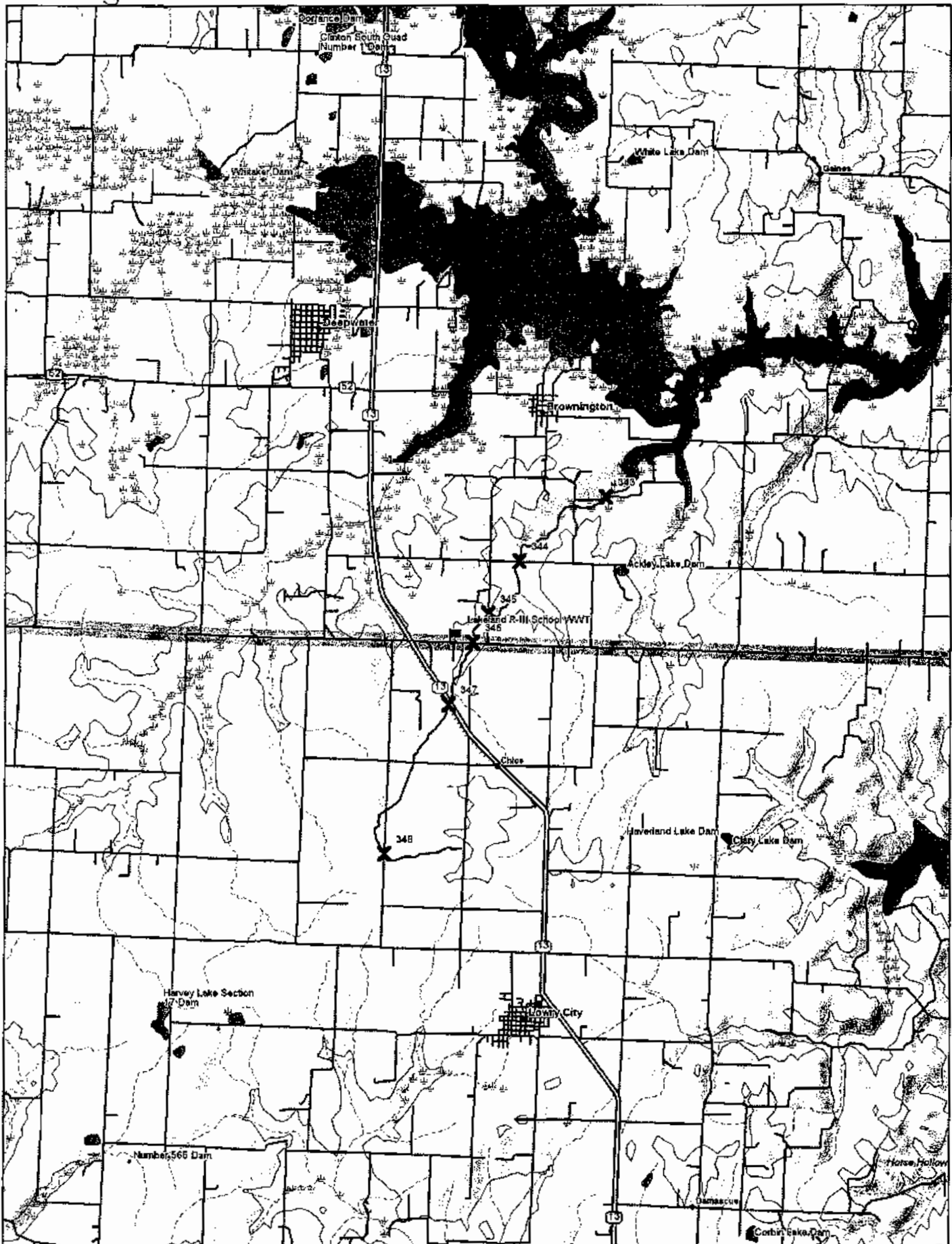
Water Body Name: (from USGS 7.5' quad)	BIG OTTER CR
8-digit HUC:	10290108
Missouri WBID #:	1224
County:	ST. CLAIR
Upstream Legal Description:	
Downstream Legal Description:	
Upstream Coordinates: (UGS 84, ddd.ddddd)	38.17648°N - 93.75824
Downstream Coordinates: (UGS 84, ddd.ddddd)	38.22974°N - 93.71582
Discharger Facility Name(s):	LAKELAND R-III SCHOOL WWTP
Discharger Permit Number(s):	
Number of Sites Evaluated:	6
Name of Surveyor and Telephone Number:	JD GB 410-356-8993
Organization:	TETRA TECH
Position:	SCIENTIST

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: JD GB Date: 6/29/05

GB 6/29/05

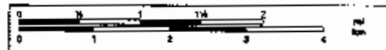
Big Otter Creek



DELORME

© 2002 DeLorme, Topo USA ®. Data copyright of content owner.
www.delorme.com

Scale 1 : 100,000
1" = 1.58 mi



TN
MI
3.0°E

ALTERNATE SITE CHOSEN FROM ORIGINAL SITE AT 38.23105°N
-93.709°W. TRIED TO REACH ORIGINAL SITE BY ACCESS ROAD
UNABLE TO REACH. REACHED 38.23051°N -93.71494° ON ACCESS ROAD.

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site) 343(A)

Missouri WBID #: 1224	Site Location Description: BRIDGE CROSSING AT SE 251	
Site GPS Coordinates: 38.22914°N -93.71582°W		
Date & Time: 6/29/05 10:00	Facility Name: LAKELAND R-111 SCHOOL WWF	
Personnel: SD GB	Permit Number:	
Current Weather Conditions: CLEAR SUNNY	Weather Conditions for Past 7 days: HOT SUNNY DRY	
Photo Ids: Upstream: 51-6279	Downstream: 50-6278	Other: 52-6280 (FOOT PATH)

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input checked="" type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>4</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>.25</u>	Max. Depth (ft): <u>.25</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>NOT MEASURABLE</u>		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>45</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>2.52</u>	Max. Depth (ft): <u>2.5</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft): <u>2.5/24</u>	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>NOT MEASURABLE</u>		

Substrate*: (These values should add up to 100%.)

<u>60</u> % Cobble	<u>20</u> % Gravel	% Sand	% Silt	% Mud/Clay	<u>20</u> % Bedrock
--------------------	--------------------	--------	--------	------------	---------------------

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>5% ALGAL GROWTH</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: J. J. Rimmer Date: 6/29/05Organization: Tetra Tech, Inc. Position: Env. ScientistJB 6/29/05

1224_343 DS



1224_343 US



1224_343 Path



1224_343 Road



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site) 344

Missouri WBID #: 12241	Site Location Description: BRIDGE CROSSING ON RT. 2
Site GPS Coordinates: 38.22013° N - 93.72816° W	
Date & Time: 6/29/05 10:20	Facility Name: LAKELAND R-III SCHOOL WWT
Personnel: SD GB	Permit Number:
Current Weather Conditions: CLEAR SUNNY	Weather Conditions for Past 7 days: HOT, SUNNY, DRY
Photo Ids: Upstream: 57-6285	Downstream: 56-6284 Other: (fence) 58-6286

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>8</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>.25</u>	Max. Depth (ft): <u>.25</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>NOT MEASURABLE</u>		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>1</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>.25</u>	Max. Depth (ft): <u>.25</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>NOT MEASURABLE</u>		

Substrate*: (These values should add up to 100%.)

<u>60</u> % Cobble	<u>40</u> % Gravel	% Sand	% Silt	% Mud/Clay	% Bedrock
--------------------	--------------------	--------	--------	------------	-----------

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>70% Aquatic GRASSES AND ALGAE</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 6/29/05
 Organization: Tetra Tech, Inc Position: Env. Scientist

JB 6/29/05

1224_344 DS



1224_344 US



1224_344 Fence



1224_344 Overpass



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization 345

(A separate data sheet must be completed for each site)

Missouri WBID #: 1224	Site Location Description: BRIDGE CROSSING AT SE 151
Site GPS Coordinates: 38.21087°N -93.73513°W	
Date & Time: 6/24/05 10:50	Facility Name: LAKELAND E-111 SCHOOL WWTP
Personnel: SD 613	Permit Number:
Current Weather Conditions: HOT SUNNY CLEAR	Weather Conditions for Past 7 days: HOT SUNNY DRY
Photo Ids: Upstream: 60-6258	Downstream: Other: 61-6259 (FENCE)

62-6290 (FENCE)

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>17</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>4</u>	Max. Depth (ft): <u>5</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft ³ /sec): <u>NOT MEASURABLE</u>		

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>2.5</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>3.5</u>	Max. Depth (ft): <u>4.5</u>
<input checked="" type="checkbox"/> Flow	Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec): <u>NOT MEASURABLE</u>		

Substrate*: (These values should add up to 100%.)

<u>50</u> % Cobble	<u>25</u> % Gravel	% Sand	% Silt	<u>25</u> % Mud/Clay	% Bedrock
--------------------	--------------------	--------	--------	----------------------	-----------

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>20% WILD GRASSES AND A LITTLE ALGAL</u>
--

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>BROWN</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 6/29/05Organization: Tetra Tech, Inc Position: Env. Scientistgbs 6/29/05

1224_345 DS



1224_345 US



1224_345 Fence



1224_345 Fence (2)



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site)

346

Missouri WBID #: 1224	Site Location Description: BRIDGE CROSSING AT SE 1100
Site GPS Coordinates: 38.20576°N - 93.13874	
Date & Time: 6/29/05 11:20	Facility Name: LAKELAND R-111 SCHOOL WWT
Personnel: JD GB	Permit Number:
Current Weather Conditions: CLEAR SUNNY HOT	Weather Conditions for Past 7 days: HOT CLEAR DRY
Photo Ids: Upstream: 66-6294	Downstream: 65-6293
Other: 67-6295 (FISHING TACKLE) 68-6296 (GATE) 69-6297 (FENCE)	

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: AG. FIELDS	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input checked="" type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>35</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>3</u>	Max. Depth (ft): <u>4.25</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	<u>NOT MEASURABLE</u>

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>32</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>3.5</u>	Max. Depth (ft): <u>4.5</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	<u>NOT MEASURABLE</u>

Substrate*: (These values should add up to 100%.)

<u>20</u> % Cobble	<u>40</u> % Gravel	% Sand	% Silt	<u>40</u> % Mud/Clay	% Bedrock
--------------------	--------------------	--------	--------	----------------------	-----------

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>100% VEGETATION</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: <u>BROWNISH</u>
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 6/29/05

Organization: Tetra Tech, Inc Position: Env. Scientist

GB 6/29/05

1224_346 DS



1224_346 US



1224_346 Fence



1224_346 Fishing



1224 346 Gate



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site) 347

Missouri WBID #: 1224	Site Location Description: BRIDGE CROSSING AT Rt. 13 DECEDED HIGHWAY
Site GPS Coordinates: 38.14506°N -93.7431°W	
Date & Time: 6/24/05 11:20	Facility Name: LAUREL R-III SCHOOL WWT
Personnel: JD GB	Permit Number:
Current Weather Conditions: SUNNY CLEAR	Weather Conditions for Past 7 days: HOT SUNNY DRY
Photo Ids: Upstream: 12-6300	Downstream: 11-6299
Other:	

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input checked="" type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: STATE MOWING OF MEDIAN				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:

Upstream View Physical Dimensions: SOUTH BOUND SIDE OF RT 13.

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): <u>14</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>1.5</u>	Max. Depth (ft): <u>2</u>
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	<u>NOT MEASURABLE</u>

Downstream View Physical Dimensions: NORTH BOUND SIDE OF RT 13

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>22</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>1</u>	Max. Depth (ft): <u>1.5</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	<u>NOT MEASURABLE</u>

Substrate*: (These values should add up to 100%.)

<u>20</u> % Cobble	<u>60</u> % Gravel	% Sand	% Silt	<u>20</u> % Mud/Clay	% Bedrock
--------------------	--------------------	--------	--------	----------------------	-----------

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>15% WEDGEGRASSES, CATTAILS AND OTHER VEGETATION</u>
--

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: J. T. Turner Date: 6/29/05

Organization: Tetra Tech, Inc Position: Env. Scientist

JB 6/29/05

1224_347 DS



1224_347 US



Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization

(A separate data sheet must be completed for each site) 348

Missouri WBID #: 1224	Site Location Description: BRIDGE CROSSING AT NE 101
Site GPS Coordinates: 38.17648°N -93.75824	
Date & Time: 6/29/05 12:10	Facility Name: LAKELAND R-111 SCHOOL WWT
Personnel: JD GB	Permit Number:
Current Weather Conditions: CLEAR SUNNY	Weather Conditions for Past 7 days: HOT, SUNNY DAY
Photo Ids: Upstream: 75-6303	Downstream: 74-6302
Other: 76-6304 (WIRE FENCE) 77-6305 (BARB FENCE)	

Uses Observed*:

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.)				

Surrounding Conditions*: (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: AG FIELDS	

Evidence of Human Use*:

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input checked="" type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

Site Locations Map(s): Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

Stream Morphology:**Upstream View Physical Dimensions:**

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>5</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>1</u>	Max. Depth (ft): <u>2</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	<u>NOT MEASURABLE</u>

Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): <u>5</u>	Length (ft): <u>10</u>	Avg. Depth (ft): <u>.25</u>	Max. Depth (ft): <u>1</u>
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Estimated (ft ³ /sec):	<u>NOT MEASURABLE</u>

Substrate*: (These values should add up to 100%.)

<u>25</u> % Cobble	<u>25</u> % Gravel	% Sand	% Silt	<u>50</u> % Mud/Clay	% Bedrock
--------------------	--------------------	--------	--------	----------------------	-----------

Aquatic Vegetation*: (note amount of vegetation or algal growth at the assessment site)

<u>NONE</u>

Water Characteristics*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input checked="" type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: 6/29/05

Organization: Tetra Tech, Inc. Position: Env. Scientist

GB 6/29/05

1224_348 DS



1224_348 US



1224_348 Fence



1224_348 Fence (2)

